

-continued

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 65

Ala Arg Gly Phe Gly Met Asp Arg
1 5

<210> SEQ ID NO 66

<211> LENGTH: 8

<212> TYPE: PRT

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 66

Ala Arg Gly Tyr Gly Met Thr Val
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<210> SEQ ID NO 67

<211> LENGTH: 8

<212> TYPE: PRT

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 67

Ala Arg Gly Phe Gly Leu Ser Val
1 5

1. An anti-PCSK9 monoclonal antibody, comprising: a light chain and a heavy chain, the light chain has Light Complementarity-Determining Regions CDR1, CDR2 and CDR3 represented by LCDR1, LCDR2 and LCDR3 respectively; in addition, the heavy chain has CDR1, CDR2 and CDR3 represented by HCDR1, HCDR2 and HCDR3 respectively; LCDR1 comprises any one of RASQSIDNRLT, RASQSVRNWLD, RASQGINSWLN, RASQNVNNWLN, RASQNINSWLN, RASQNINWLN, RASQGIHNWLN, RASQDVDSWLT, RASQSVRNWLN, RASQDVNRWLT or RASQSIRSYLN; LCDR2 comprises any one of DAS-SRQS, GASTLES, AASTRET, GASSRQS, GASTRPT, DASNRQS, GASNLAS, DASNLQS or DASSRPT; LCDR3 comprises any one of QQPENDPTT, QQDNDIPLT, QQWNNTPNT, QQDNDMPLT, QQWFDVPTT, QQWDDTPNT, QQNSNIPLT, QQDSKIPLT, QQWTDTPLT, QQDDSTPPT or QQGDSMPMT; HCDR1 comprises any one of GGTFITNNA, GYTVTSYG or GYSLTSYG; HCDR2 comprises any one of RIIPMFGMA, WLSFYNGNT, WVTFYNGNT, WVSFYQGNT, WVS-FYNGQT or WVSFYNGNS; HCDR3 comprises any one of AREGIPMI, ARGYSLDV, ARGYGMSI, ARGFGMDR, ARGYGMTV or ARGFGLSV.

2. The anti-PCSK9 monoclonal antibody as claimed in claim 1, wherein the light chain variable region amino acid sequence is preferably selected from any one of SEQ ID NO. 11, SEQ ID NO. 12, SEQ ID NO. 13, SEQ ID NO. 14, SEQ ID NO. 15, SEQ ID NO. 16, SEQ ID NO. 17, SEQ ID NO. 18, SEQ ID NO. 19, SEQ ID NO. 20, or SEQ ID NO. 21.

3. The anti-PCSK9 monoclonal antibody as claimed in claim 1, wherein the heavy chain variable region amino acid sequence is preferably selected from any one of SEQ ID NO. 1, SEQ ID NO. 2, SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, SEQ ID NO. 6, SEQ ID NO. 7, SEQ ID NO. 8, SEQ ID NO. 9, or SEQ ID NO. 10.

4. The anti-PCSK9 monoclonal antibody as claimed in claim 1, wherein the heavy chain variable region HCDR1

sequence is selected from an amino acid sequence of GYTVTSYG or GYSLTSYG; the light chain variable region LCDR1 sequence is selected from an amino acid sequence of RASQSVRNWLD, RASQNVNNWLN, RASQNINSWLN, RASQNINWLN or RASQDVDSWLT; the heavy chain variable region HCDR2 sequence, is selected from an amino acid sequence of WVSFYQGNT, WVSFYNGQT or WVSFYNGNS; the light chain variable region LCDR2 sequence is selected from an amino acid sequence of GASTLES, AASTRET, GASSRQS, GASTRPT or GASNLAS; the heavy chain variable region HCDR3 sequence is selected from an amino acid sequence of ARGYSLDV, ARGYGMSI, ARGFGMDR or ARGYGMTV; the light chain variable region LCDR3 sequence is selected from an amino acid sequence of QQDNDIPLT, QQDNDMPLT, QQWFDVPTT, QQWDDTPNT or QQDSKIPLT.

5. An antibody, a polypeptide, a protein, an antibody drug conjugate, an artificial carrier, a medicine or a medicine composition comprising the light chain or the heavy chain of the anti-PCSK9 monoclonal antibody as claimed in claim 1.

6. The antibody, the polypeptide, the protein, the antibody drug conjugate, the artificial carrier, the medicine or the medicine composition as claimed in claim 5, wherein the antibody is whole-length antibody, single-chain antibody, single domain antibody, or bispecific antibody.

7. The antibody the polypeptide, the protein, the antibody drug conjugate, the artificial carrier, the medicine or the medicine composition as claimed in claim 5, wherein the antibody is capable of specifically binding with PCSK9.

8. (canceled)

9. A recombinant DNA expression vector comprising a polynucleotide sequence or a combination of polynucleotide sequences for encoding the heavy chain or the light chain of the anti-PCSK9 monoclonal antibody as claimed in claim 1.